

TITLE 106 - NEBRASKA STATE ENERGY OFFICE

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CODE 011 - Calculation of Savings

011.01 Calculation of Energy Savings. The calculation of energy savings expected to result from the implementation of each Measure shall:

011.01A. include the efficiency or coefficient of performance of furnaces, boilers, refrigeration equipment, heat pumps, motors and other equipment;

011.01B. be supported by actual measurement or calculation of the steady-state or seasonal efficiency or coefficient of performance of Measures which will result in energy savings due to improvements in efficiency or coefficient of performance;

011.01C. be based on accepted engineering calculations and supported by major equations with units;

011.01D. use the following conversion factors:

011.01D1. electricity - 3413 Btu per kWh;

011.01D2. natural gas - 1000 Btu per cubic foot;

011.01D3. propane or liquid propane gas - 95,000 Btu per gallon;

011.01D4. distillate, #2 or diesel fuel oil - 140,000 Btu per gallon;

011.01D5. residual or #6 fuel oil - 150,000 Btu per gallon;

011.01D6. coal - 17.5 million Btu per short ton;

011.01D7. steam - 1000 Btu per pound;

011.01D8. chilled water/brine - 12,000 Btu per ton-hour; and

011.01D9. any other conversion factors shall be taken from engineering references and their sources noted in the Study;

011.01E. list assumptions and provide substantiation for all numeric values.

011.02 Calculation of Energy Cost Savings. The Energy Cost Savings for Projects shall be calculated by multiplying the estimated annual energy savings by the current, average cost of the fuel or electricity being saved.

011.02A. When a Project results in the reduction of electric demand, the calculation may include the cost savings which would result from a reduction in demand charges, but such savings shall be clearly labeled as demand charge savings.

011.02B. When a Project results in a reduction of Operation and Maintenance costs, the calculation may include the cost savings, but such savings shall be clearly labeled as Operation and Maintenance savings.

011.02C. When cost savings other than Energy Cost Savings are calculated in a Study, the report may include a calculation of the total savings for the Project, as long as there is a separate, clearly labeled calculation of the Energy Cost Savings.